

LEGEND

QUATERNARY

Q Glacial and glacio-fluvial deposits; sand, gravel, boulder clay, till, and peats.

CARBONIFEROUS

BARACHOIS GROUP (Pennsylvanian–Upper Carboniferous)

CB Mainly red and green sandstone, siltstone, shale, and mudstone; minor coal seams; conglomerate.

C SHANADITHIT FORMATION: Mainly poorly indurated red and grey sandstone and conglomerate, minor limestone and siltstone.

NOTRE DAME/DASHWOODS SUBZONES

SILURIAN

PUDDLE POND COMPLEX (ca. 431 Ma)

SPmi Foliated to unfoliated, dark grey to green, mainly medium- to coarse-grained, partly amphibolitized equigranular to plagioclase-phyric hornblende diorite, gabbro, or diabase. Gabbro locally contains layers of pyroxenite and pegmatitic pods. Cut by pink felsic dykes of the Lake of the Hills Intrusive Suite (SLH). Mafic rocks commonly have mixed arc to non-arc-like compositions. Locally orthopyroxene- or clinopyroxene-bearing in the Cormacks Lake complex.

SPc Foliated to unfoliated, mainly layered cumulate sequence of anorthosite, troctolite, olivine norite, norite, gabbro, olivine gabbro, and gabbro, with minor pyroxenite. Minor alteration to epidote, hornblende and/or actinolite and chlorite.

ORDOVICIAN

SOUTHWEST BROOK COMPLEX (ca. 461 Ma)

OSBtg Generally well foliated, white, medium- to coarse-grained, mainly biotite- and/or hornblende-bearing, tonalite and/or granodiorite. Includes minor quartz-diorite. Commonly contains abundant mafic enclaves or schollen of diorite, amphibolite, and hornblende. Mafic enclaves or schollen are locally so abundant that the rock appears agmatitic. The mafic enclaves/schollen in part probably represent relict co-mingling structures largely destroyed by continuous veining by tonalite. Commonly displays epidote alteration. Locally include crosscutting pink muscovite-bearing aplite, granite and pegmatite dykes of the Lake of the Hills Intrusive Suite (SLH) and gabbro or diorite of the Puddle Pond Complex (SPmi).

OSBdt Generally well foliated, medium- to coarse-grained, biotite and hornblende-bearing quartz diorite and/or tonalite. Characteristically contains abundant blue quartz eyes and displays various degrees of epidote alteration. Agmatite structure due to enclaves or schollen of amphibolite and hornblende is common. Contains locally aplite and pegmatite dykes, and massive quartz xenoliths (2–5 cm). Is intruded by members of OSBtg

OSg Foliated to unfoliated biotite granodiorite and/or granite, locally with K-feldspar megacrysts. May in part be equivalent to SPgd. Some granite containing muscovite and may be equivalent to SLHe

NEOPROTEROZOIC TO MIDDLE ORDOVICIAN

CORMACKS LAKE COMPLEX (> 455 Ma)

OCg Mainly well-banded granodiorite to tonalite orthogneiss (ca. 483 Ma).

OCmi Metagabbro, orthopyroxene- and/or clinopyroxene-bearing.

EOcmv Strongly foliated; locally pillowed or layered mafic volcanic rock. Probably also includes minor diabase and gabbro. Generally intensely metamorphosed into garnet and/or clinopyroxene-bearing amphibolite. Some mafic rocks contain layers rich in gedrite, which suggest that some volcanic rocks experienced pre-metamorphic hydrothermal alteration.

EOCs Strongly foliated, generally strongly migmatitic sillimanite-garnet schist commonly interlayered with abundant gedrite±cordierite rock, minor metapsammite, and rare calcsilicate (EOCcs). Sequence in part has a felsic volcanic protolith dated at ca. 489 Ma. Locally interlayered with EOcmv.

DENNIS POND COMPLEX (> 488 Ma)

EODPgb Mainly gabbro. Includes minor troctolite and trondhjemite.

EODPu Mainly layered ultramafic rock. Includes dunite, harzburgite, lherzolite, wehrlite, websterite, pyroxenite. Locally contains chromite-rich layers. Also includes minor gabbro and trondhjemite. Variably metamorphosed and altered to antophyllite, cummingtonite, serpentine, talc, and chlorite.

NODPsm Characteristically unlayered and chaotic, strongly metamorphosed and migmatitic mélange, consisting of abundant large blocks and cobbles of mafic rocks in a pelitic to semipelitic matrix.

NODPs Mainly chlorite and muscovite bearing schistose mixture of granitoids and metasediments, with local tectonic inclusions of other Dennis Pond complex units; the metasediments in part are correlative to Mischief Mélange of Hall and van Staal (1999).

NOSgs Tectonic zone consisting of greenschist mylonites and cataclasites, strongly deformed paragneisses, orthogneisses, granite, and anorthosite; mylonite and cataclasite protoliths are principally sedimentary (NODPs), but also granitoid (OSBtg), and anorthositic (MSMA); may include minor amounts of Silurian leucogranite (Sg).

NEOPROTEROZOIC AND OLDER

STEEL MOUNTAIN COMPLEX

MSMA Massive to strongly foliated pegmatitic white to lilac anorthosite, gabbroic anorthosite, and anorthosite gneiss, cumulate textures along the margin.

UNDIFFERENTIATED CORNER BROOK LAKE COMPLEX (ca. 1510 Ma)

MNCBL Quartzo-feldspathic gneiss and migmatite, with interbanded amphibolite, minor quartzite, marble, and quartz-feldspar-mica paragneiss, orthopyroxene-bearing gneisses may include gneisses related to Hare Hill Complex (NHHT)(see OF4921); a local occurrence of aplite and pegmatite dykes.

Geological boundary (approximate, assumed, gradational)

Fault, undefined (assumed)

Fault, approximate (sinistral)

Unconformity

Outcrop (this study, compiled)

Bedding, top known (overturned)

Bedding, top unknown (inclined, vertical)

Foliation: S₁, main and/or composite (inclined, vertical)

Lineation: main, mineral or extension

Z-fold, plunge and plunge direction (generation unknown)

M-fold, plunge and plunge direction (generation unknown)

U/Pb zircon age determination

Mineral occurrence; National Mineral Inventory Number

431 ± 2 Ma ★

Fe008 ✕